To: BetaBatt, Inc. (ray.ferrera@arlaw.com)

Subject: TRADEMARK APPLICATION NO. 77036122 - DEC - B31175US

Sent: 4/30/2008 11:45:25 AM

Sent As: ECOM110@USPTO.GOV

Attachments:
Attachment - 1
Attachment - 2
Attachment - 3
Attachment - 4
Attachment - 5
Attachment - 6
Attachment - 7
Attachment - 8
Attachment - 9
Attachment - 10
Attachment - 11
Attachment - 12
Attachment - 13
Attachment - 14
Attachment - 15
Attachment - 16
Attachment - 17
Attachment - 18
Attachment - 19
Attachment - 20
Attachment - 21
Attachment - 22
Attachment - 23
Attachment - 24
Attachment - 25
Attachment - 26
Attachment - 27
Attachment - 28
Attachment - 29
Attachment - 30
Attachment - 31
Attachment - 32
Attachment - 33
Attachment - 34
Attachment - 35

UNITED STATES PATENT AND TRADEMARK OFFICE

SERIAL NO: 77/036122

MARK: DEC

CORRESPONDENT ADDRESS:
Raymond R. Ferrera
Adams and Reese LLP
1221 McKinney, Suite 4400
Houston TX 77010

GENERAL TRADEMARK INFORMATION:
http://www.uspto.gov/main/trademarks.htm

APPLICANT: BetaBatt, Inc.

CORRESPONDENT'S REFERENCE/DOCKET NO:
B31175US
CORRESPONDENT E-MAIL ADDRESS:
ray.ferrera@arlaw.com

REQUEST FOR RECONSIDERATION DENIED

ISSUE/MAILING DATE: 4/30/2008

Applicant is requesting reconsideration of a final refusal issued/mailed October 12, 2007.

After careful consideration of the law and facts of the case, the examining attorney must deny the request for reconsideration and adhere to the final action as written since no new facts or reasons have been presented that are significant and compelling with regard to the point at issue.

Applicant argues that its mark is not descriptive because applicant does not provide "direct energy conversion" to consumers. However, the applicant does not need to be providing direct energy conversion to consumers in order for its mark to be descriptive. A term is merely descriptive if it conveys an immediate idea of the ingredients, qualities, or characteristics of the identified goods and/or services. *See In re Steelbuilding.com*, 415 F.3d 1293, 1297, 75 USPQ2d 1420, 1422 (Fed. Cir. 2005); *In re Dial-A-Mattress Operating Corp.*, 240 F.3d 1341, 1346, 57 USPQ2d 1807, 1812 (Fed. Cir. 2001). In this case, the term DEC which means "direct energy conversion" describes a characteristic of applicant's batteries and the treatment of the batteries. Please see the attached evidence from www.google.com. Thus, the term DEC is descriptive of the goods and services based on Trademark Act Section 2(e)(1).

Applicant also argues that none of the evidence cited by the examining attorney contains reference to batteries. However, the examining attorney notes that several articles contain references to direct energy conversion and batteries. In fact one of the articles attached states the following: "In the longer term, "nuclear" **batteries** that use **direct energy conversion** of nuclear radiation may provide power in sufficient quantity, and for years at a time regardless of ambient temperature. . . . Nuclear **direct energy conversion (DEC)** devices sound frightening, but in fact, are very similar to solar cells. Instead of solar radiation, nuclear DECs use radiation provided by the decay of a radioisotope embedded within the battery." See www.automationworld.com. Thus, consumers refer to the term DEC with regard to batteries and treatment of materials in relation to generating power.

Applicant argues that its mark should register because "it is highly questionable that a consumer would even know that DEC is an acronym for direct energy conversion". However, based on the attached

evidence, it is clear that consumers use the term DEC as an acronym for "direct energy conversion". The attached evidence from google.com shows over 1600 sites including the terms "direct energy conversion" DEC and batteries. Also, the evidence attached to the first office action shows that that the term DEC is an acronym for "direct energy conversion". Thus, it is clear that consumers recognize the term DEC as meaning "direct energy conversion." Because the term DEC describes a characteristic of the goods and services, that it is frequently used to describe a particular type of treatment of radioactive materials and consulting associated therewith and batteries that derive their energy from DEC treatment. Finally, two major reasons for not protecting descriptive marks are (1) to prevent the owner of a descriptive mark from inhibiting competition in the marketplace and (2) to avoid the possibility of costly infringement suits brought by the trademark or service mark owner. *In re Abcor Dev. Corp.*, 588 F.2d 811, 813, 200 USPQ 215, 217 (C.C.P.A. 1978); TMEP §1209. Businesses and competitors should be free to use descriptive language when describing their own goods and/or services to the public in advertising and marketing materials. *See In re Styleclick.com Inc.*, 58 USPQ2d 1523, 1527 (TTAB 2001). Because consumers need to use the term DEC in relation to batteries and treatment of radioactive materials, the applicant would be inhibiting competition in the marketplace. Therefore, the final refusal based on Trademark Act Section 2(e)(1) is continued.

Accordingly, applicant's request for reconsideration is *denied.* The time for appeal runs from the date the final action was issued/mailed. 37 C.F.R. Section 2.64(b); TMEP Section 715.03(c). If applicant has already filed a timely notice of appeal, the application will be forwarded to the Trademark Trial and Appeal Board (TTAB).

/Caroline E. Wood/
Trademark Examining Attorney
Law Office 110
(571) 272-9243

STATUS CHECK: Check the status of the application at least once every six months from the initial filing date using the USPTO Trademark Applications and Registrations Retrieval (TARR) online system at http://tarr.uspto.gov. When conducting an online status check, print and maintain a copy of the complete TARR screen. If the status of your application has not changed for more than six months, please contact the assigned examining attorney.

INDUSTRY VIEW

Nuclear Batteries for Wireless Sensors

March 2006 (p.58)

Written by Harry Forbes, hforbes@arcweb.com, is a senior analyst at ARC Advisory Group Inc., Dedham, Mass.

Email this article Print Subscribe

Electric power supply is the single most difficult constraint for industrial wireless sensor design. Present-day commercial products rely on chemical ***batteries****.*

Future products will supplement these with energy-harvesting technologies such as solar cells or piezoelectric generators driven by vibration. In the longer term, "nuclear" **batteries** that use **direct energy conversion** of nuclear radiation may provide power in sufficient quantity, and for years at a time regardless of ambient temperature.

Several new power supply technologies are being investigated for future wireless sensors. Initially, these technologies will serve in a supplemental role to chemical **batteries**. These new sources provide smaller amounts of power on a continuous basis and will work together with a chemical battery that provides energy storage. These new technologies may eventually be able to take over the entire

APPLICATIONS
- Performance Management
- Business Processes Integration
- Process Automation
- Batch Automation
- Machine Automation
- Control and Instrumentation Strategies

More Categories

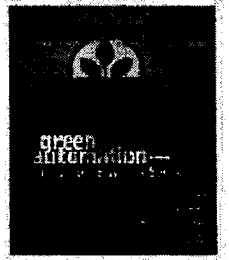
INDUSTRIES
- Packaging
- Food/Beverage
- Pharmaceutical
- Chemical
- Petroleum
- Utilities

More Categories

TOOLS & RESOURCES
- Events & User Groups
- Special Reports
- Video Library
- White Papers
- Webcasts
- Podcasts
- Blogs
- Newsletters
- RSS Feed
- Research & Surveys

MAGAZINE: MARCH 2008

Green Automation



- Current issue
- Back issues
- Subscribe

RELATED SPONSORED LINKS

White Paper: Gigabit Industrial Ethernet for Today's Controller Networks

Honeywell Users Group 2008 --

PACSystems RX3i FREE trial!

Rockwell Automation hosts RSTechED 2008 in Orlando, Florida.

LEXIUM Servo Equipment from Schneider Electric

RELATED ITEMS

ARTICLES

ISA88 Beyond Batch

PACs Gain Momentum

Wireless Makes Noise At ISA Expo

Mechatronics, Electronics Lead News at Festo Gathering

Software For Revising Software

MOST POPULAR

Product Focus

Vendors Compete for Attention at ARC Forum

Packaging Automation Forum to Offer Look Ahead

Industrial Wireless Bluetooth Platform

CEO Kindle Leaves ABB

technologies may eventually be able to take over the entire role of sensor power supply, bringing significant advantages over chemical **batteries**.

Here comes the sun

Solar cells—which perform **direct energy conversion** of solar radiation—is one technology that has been used experimentally and in field trials of wireless sensors. It is already common in supervisory control and data acquisition (SCADA), as well as in infrastructure applications, such as remote weather monitoring. For wireless field devices, the limitations of solar cells are that they may not harvest sufficient energy in all applications.

Piezoelectric power harvesting uses ambient mechanical vibrations to generate small amounts of electric power that is stored either in a capacitor or battery. Venture firms have experimented with these electric power supplies that can have form factors similar to **batteries**. Presently, these supplies are large but not unworkable for some industrial applications.

Nuclear **direct energy conversion** (**DEC**) devices sound frightening, but in fact, are very similar to solar cells. Instead of solar radiation, nuclear DECs use radiation provided by the decay of a radioisotope embedded within the battery. This radiation falls on a semiconductor device similar to a solar cell, and directly generates electric power.

The primary advantage of nuclear devices is that the source of primary energy is the radioisotope, which can have a very long life. Because the reaction is nuclear rather than chemical, it proceeds at the same rate regardless of ambient temperature—a significant advantage over chemical **batteries** in industrial applications. However, this isotope must also be chosen such that the radiation emitted has sufficient energy, is optimum for capture in a small space, and does not radiate outside the device. This limits the potential isotopes to those that emit alpha or beta particle radiation, which has very limited penetration capability. In addition, the radioactive decay must form a stable element that does not later emit harmful radiation through further decay. Two isotopes that meet these criteria

through further decay. Two isotopes that meet these criteria are tritium, an isotope of hydrogen, and nickel 63, an isotope of nickel. The half-lives of these products are 12.3 and 100.2 years respectively. This means that a supply of the isotope will be emitting half its initial radiation 12 or 100 years after manufacture.

The challenge of nuclear **batteries** has been to increase the efficiency of conversion. In order to do this, researchers have developed microelectronic structures that are optimized for capture of the radiation. Current research focuses on building honeycomb structures for the semiconductor material. Researchers in this area envision tritium **batteries** the size of a common "D" cell battery that could provide 1 to 5 milliwatts of power, even after 12 years of service. This is far more than is required to drive most wireless sensors.

The industrial market is not large enough to promote the development of an entirely new battery technology. But fortunately, other market segments can also provide applications for these premium power supplies.

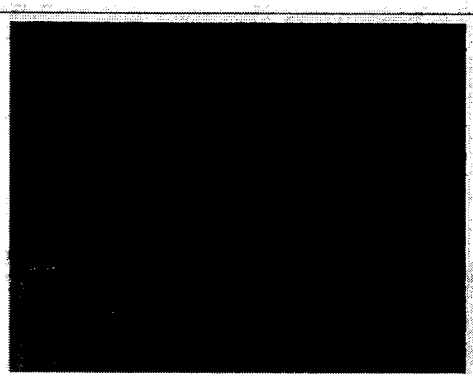
http://64.233.169.104/search?q=cache:vWdse6ADrGAJ:peswiki.com/index.php/Directory:Potomac_Energy_Projects,_LLC+%22dec%22+batteries+%22direct+energy+conversion+%22+-betabatt&hl=en&ct=clnk&cd=17&gl=us
04/30/2008 10:01:38 AM

PESWiki.com -- Pure Energy Systems Wiki -- your publicly editable site about new energy technologies. Power to the people!

Directory:Potomac Energy Projects, LLC

<< A Top 100 Energy Technology >>

Potomac Energy Projects, LLC, is pursuing a major research project to develop an electrical generator that only requires liquid nitrogen to operate. Ongoing R&D involves superconductivity, magnetic energy, and flux gates that can channel magnetic flux in a manner that will generate electricity. Our primary goal is to replace fossil fuel dependency with power provided through a new method of "Direct Energy Conversion (DEC).□



- Recent Changes
- News | FEN | PESN
- Latest Features
  - Otto $5k challenge to HFAC critics
  - Linear Magnet Accelerators
  - Electrogravitics
  - Legal
  - Buyer Beware
  - Nitin Raulji, NEC
- OverUnity Forum
- Events

related

for sale . . .

- ScanGauge II
- Make Electricity
- Water 4 Gas
- Poor Man's Wind Turbine
- H-Racer
- Hydrogen-Boost
- Power your Life

for businesses . . .

- Requests for

This technology does not require oil or other carbon-based fossil fuels to generate electrical energy. The only waste products are heat and nitrogen gas. The **DEC** device is solid state with no moving parts, providing trouble-free service throughout the life of the generator.

Upon further development, this new **DEC** method has the potential to produce megawatts of clean electricity for powering electrical cars, trucks and everything in our homes within the next 10 years, free of the standard power grid - no more blackouts or brownouts. **DEC** generating devices could replace current electrical power plants, as well as the conventional power grid, with clean, highly efficient distributed electrical power systems.

> "The SRG technology is very much needed in space – given that it works at very cold temperatures and produces Megawatts without nuclear products. It is ideal for close quarters living in space. I like to think this concept could be used to produce our first single stage to orbit aircraft as well as provide the energy to run very large ion engines with enough thrust to reach Mars in 2 weeks." – Eddie Sines (Feb. 18, 2007)

The official web site is http://www.potomacenergyprojects.com.

— Web Site

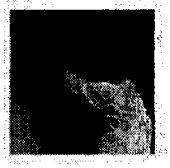
Table of contents [hide]

About [edit]

Official Websites [edit]

- http://www.potomacenergyprojects.com/

Video [edit]



- **Whiteboard explanation of Eddie Sines electrical energy production concept** (9:31 mins) - The following is a simplified description of how Sines Reluctance Generator is envisioned to work. Concept involves magnetic flux generation (for electricity creation) via laser input modifying the conductivity of a liquid-nitrogen-cooled-YBCO superconductor thin film on quartz crystal tubes. (*YouTube*; Oct. 15, 2006) (Also at Google Video)
  - Part II, Q&A (9:45 min) - 10% of output would be required to maintain the liquid nitrogen. Another 2-3% output required to address other losses. The rest is available for use. (Posted to *Google Video* Oct. 18, 2006)

Latest Developments [edit]

April 2, 2008: first working Ion gun from scratch [edit]

Eddie Sines writes:

Just built my first working Ion gun from scratch! Man what a battle.

Just wanted to pass you these first pictures and show you where that money went. Sorry to say it only covered a little bit of the total expenses. Still I am deeply appreciative of the help.

It sure took longer then expected but at last it's working. Just finished my first 2 hour run burning it in to see how stable its going to be. Were looking very good.

This means we can push forward now and make some calibration runs.

- H from Water
- Geothermal
- Gravity Motors
- Home Generation
- Human Powered
- Lighting
- Magnet Motors
- Nanotechnology
- Ocean Wave
- River
- Solar
- Suppression
- Thermal Electric
- Tidal
- Vortex
- Waste-to-Energy
- Wind
- Zero Point
- much more ...

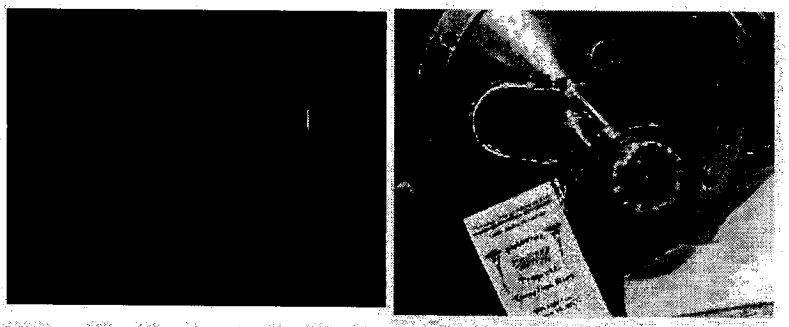
- PowerPedia
  - BetaVoltaic
  - Cold Fusion
  - Nikola Tesla
  - more ...
- Radio Shows
- Movies
- PESWiki Sites
- Reviews
- Videos
- Academy
- Political Action
- Store

sister sites

- Free Energy News
- PESN (news)
- PureEnergySystems

support

...



Still working the bugs out of the ion gun but we're making progress.

The picture with the black and blue lighting is the ion gun in operations. Note you have to rotate the picture so the half moon blue lighting [the ion gun] is on your right side. The left side is a target of phosphorus V22 material that changes ions into light. Kind of a test to see how the ion spread out over the target surface.

Ion's play an important role in the process of thin films. Can't wait to get this interface up and running.

Independent Fundraiser Updates [edit]

- **Independent Fundraiser for Sines Reluctance Generator** - Bon Kulman has independently initiated a small $1,000 fund drive to support the research and development of one of the leading exotic energy technologies. Electrical generator concept involves thin film superconductivity, vortices and magnetic flux gates. Expires 1/16/08.
  - *As of the Jan 10th we have collected $1000 - our goal of $1000 minimum has been met and the total amount collected by January 16th will be forwarded to the Sines Reluctance Generator project once the fund drive closes out on the 16th! Thanks to everyone who donated - spread the word and help make this project a reality!* Every dollar helps bring free energy a little closer to everyone!!! Please continue to show your support to help end the oil cartel's grip on our global economy.
  - *Sorry for the delay on my end, was my bad. I apologize to everyone who contributed and especially Eddie Sines for not getting the money to him in a timely manner, I know he needs it for continued research. I kicked in an additional 70$ to bring the total back up to a $1000 (fundable takes a 7% take on all donations, just to let people who use this know for future reference) from $930. I believe Sterling sent a $1000 to Eddie so this should reimburse him. Again sorry the delay and I am more humbled. -Bon(2/11/08)*

Dec. 19, 2007 [edit]

Dec. 13, 2007

Re: http://www.rsc.org/Publishing/ChemScience/Volume/2008/01/Superconducting_cuttlefish.asp - It has to do with using Cuttlefish bones as a template for superconductive materials. Not only does it make the materials lighter than conventional methods, but it also improves it's capabilities.

Eddie Sines wrote:

Looks like nature is always going to be way out front!

This is very interesting indeed and I will take some time out to look into this concept. I have been studing this crystal structure now for about 4mths, 100's of hours of R&D. After looking into the process of making super conductor thin films I have uncovered what I believe to be a real break thru in the process. Seem the guys before me have been making an error, maybe.

I hope to put this theory to practice very soon. If I am correct it should be able to improve the performance of thin films by at least a factor of 2, while reducing the faults to a minumum.

PEP has in hand our first ion gun. The gun was designed in house and we have a power supply coming from Japan due in on **Dec** 28, 2007. Once we have the supply in hand we plan to test said ion gun and then proceed to doing thin films on Silica. It should take about 30 days to close this data/process task and then we plan to move into Phase II. Things are looking very exciting for the new year.

Dec. 11, 2007 [edit]

Eddie Sines wrote:

Working around the clock for the past few months on my project making some very good progress. BTW, the PEP concept has a direct link to the Casimir Force and I have reason to believe the Casimir Force is going to turn out to be the source of the energy that is coupled into the PEP device.

It could turn out to be the "ONE". Lots and lots of physics like bread crumbs is leading the way. The evidence is starting to look over whelming. I also discovered a text that suggest that 1/2 of the ZPE is potential energy ready for the taking. This information came out of a well know solid state physics book that is bared from sale in the US?

Some very interesting things are going on all around the world related to PEP. PEP is getting some exposure/interest in Holland, Australia and now the DOE. China is also looking into this concept.

PEP has found a company in the UK that is coating larger cylinders with thin films of YBCO on stainless steel cylinders substrates. They have just finished coating their first cylinder. This means that we now have a risk reduction, meaning that it's proven that one can coat cylinders with thin films of YBCO.

It took ~$2.5M and ~ 4.5 years of effort. Their principle investigator stopped in to see PEP's lab and was impressed by what he saw and the progress we had made. He also commented that he didn't see any reason why you couldn't coat small cylinders like I suggested. His background was in crystal lattice structures and materials. He is very interested in the concept but is unable to comment on it since it was outside of his area.

This means that PEP's concept to coat small cylinders is no longer a high risk problem, but just a matter of set up time and funding! We are very close to finding out if this concept will work and are making ever effort to push forward as fast as funding permits.

This is great news. In the mean time, PEP has become very good at making high quality HTS thin films.

I have mapped out a low risk method for coating the vortex cylinders, but like any thing in life the manufactured hardware is very expensive, so PEP will need to build it's own interface. Commercial system are running ~ $25K for just one part. Even if I make my own it still takes funding. I am working on the mechanical drawings now and plans to start to build the final parts I need to do thin film coatings ASAP. I expect the chamber to be down for ~ 30 days while this new interface is manufactured and installed. Can't wait to see the new year start. It's been a very long hard run to find out if this concept will work and it looks like 2008 is going to be the year.

April 21, 2007

[edit]

PEP is now funded. This funding gives PEP the ability keep the lights on and do more R & D and process the IP. The funds provide Eddie Sines with a working salary, as well as one technician to work on the prototype. A new lab is being set up that is much larger.

Overview

[edit]

Message from Eddie Sines, May 5, 2006

My company name is Potomac Energy Projects, LLC. We started this company on February 1, 2006. The goal of this company is to develop an alternate energy process that will use LN2 as the primary fuel to drive electrical cars, trucks and homes.

LN2 was looked into over the years but not the way we plan to use it. The energy conversion or efficiency LN2 will set a new world record when compared to the Carnot cycle.

All hydrocarbon devices are now obsolete, including Hybrid cars, since they have large battery banks which have a high replacement cost. Even the H2 cars are obsolete using the new fuel cell technology

which have a high replacement cost. Even the H2 cars are obsolete using the new fuel cell technology, since they only shift the problem but don't solve the real problem of our dependency on oil -- imported oil to be more precise.

This new technology will green thumb, since it only produces CO2 once in the cycle and in some cases, none when solar, nuclear, wind and hydro are used.

This new system has many advantages.

The concept has deep roots in real physics. It has taken me some 15 years of study to understand and refine this concept up to this point.

We are in the process of making our first working prototype or proof of concept working model.

In a way, companies like yours will play a very important role in the new model. Gone will the large distribution trucks and ships that need to cross the oceans to bring back oil, where American's are not well liked.

The economics of LN2 system is considerably less expensive then the present system and doesn't kill the planet at the same time. This new system could even scrub off CO2 and pump it into a pipe line for conversion into other products freeing out atmosphere of this global heating problem. If adopted, world wide we could turn back the clock in 10 years.

Every person on the planet would have access as long as they had electrical energy or a means of producing it using proven methods. Our cities would have ZERO pollution using this system since the only waste products would be nitrogen gas and heat. In effect we could scrub the complete atmosphere of waste products, like CO2 and other known harmful aerosols.

When you consider the present price of oil which is at ~$73/B, their is a significant savings if we could switch to LN2. I computed the cost of a single barrel at ~$6.00.... a major savings or profit margin should we get this new device working. In effect, we could change the world as we know it.

The hurdles are many and the technical solutions are by no means simple, but my research indicates they are all solvable given time and funding. With the help of vendors and people who want to make this change I believe that it will be possible to do. This concept has only been possible since 1990. As you can see we are ~16 years behind what could have been done back then.

-Eddie Sines, President, Potomac Energy Projects, LLC

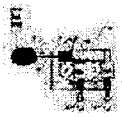
Patents [edit]

Patent Application [edit]

Patent Application

Sines Reluctance Generator Provisional Patent Application

- Sines Reluctance Generator (pdf) U.S. patent application, submitted June 14, 2006; and posted online June 15, 2006.
- **Sines Reluctance Generator International Patent Application Online** - "A method and apparatus for direct energy conversion employs modulated static magnetic flux emanating from the pole of a permanent magnet. Photon Cooper pair breaking is used to force a quantum state in Type II superconductor thin films by modulating a vortex channel made up of ..." (*WIPO*; Jan. 10, 2008; initially submitted June 13, 2007)



Abstract

This application describes a **Direct Energy Conversion** (**DEC**) method for extracting massive amounts of electrons developed and coupled by modulating the static magnetic flux emanating from the poles of permanent magnets (PM). This process is accomplished using the unique properties of Type II High Temperature Superconductors (HTSC).

HTSC materials provide a means to modulate static flux. This flux is coupled in a traditional magnetic circuit where the laws of induction are used to produce an electrical potential to drive motors, lights and other useful devices. This electrical energy is manufactured at the atomic level and does not require the used of a moving armature.

In addition, this new **DEC** generator (DECG) will only require liquid nitrogen to maintain the super conductive state of the Type II superconductors and some small control logic in order to function. In effect, this new DECG configuration will be solid state, have no moving parts making them ideal for many new applications.

These new DECGs combine the known physics of Type II HTSC materials like, the Meissner Effect known to expel static flux from the interior of superconductor structure. High levels of static flux is also known to cause vortices in Type II HTSC. This application teaches a new method to use these vortices to control and modulate static flux.

The vortex cylinder is manufactured and optimized to work with a process known as "Photon Cooper

Pair Breaking (PCPB). This process will toggle the Type II SC in and out of the superconductivity state thereby providing a time varying magnetic field enabling power to be extracted using traditional means.

Tangential Patents [edit]

Awarded to Eddie Sines

- Novel Cooling Technique I (6,259,347)
- Novel Cooling Technique II (6,777,835)

Self-Evaluation [edit]

On around June 12, 2006, PEP posted the following self-evaluation on their FAQ page, according to the criteria set forth by the New Energy Congress.

I. Renewable

Using magnetic flux generated from permanent magnets, the only renewable requirement is liquid nitrogen, and in an environment such as space, liquid nitrogen could be recycled without an energy input. Type II superconductors with a higher Tc would only require cool air below Tc temperatures to operate.

II. Environmental Impact

No direct impact to the environment; only that which is initially required to produce a unit, and the energy required to generate the liquid nitrogen to operate the device. Increasing liquid nitrogen production capacity and demands would actually clean up the environment by extracting the pollution in the air during the liquid nitrogen generation process. Next generation systems will eventually allow for a completely closed system, similar to refrigeration systems, though the next generation systems will provide the energy required to generate liquid nitrogen directly from the unit.

III. Cost (cents / kw-h)

Estimated at approximately 10% of the current cost for fossil fuel electrical energy generation (check your electric bill for current rates, then divide by 10 for a rough estimate)... still to early to peg an exact figure. Next generation units would require only a fraction of that amount, and eventually no cost whatsoever.

IV. Credibility of Evidence

Research throughout the world has proven every aspect of the various components of the device as well as its design, though without a first-hand experience of a working prototype, this and ANY OTHER claim regarding new technologies should be viewed as highly suspect since the energy industry is such a lucrative market. Note how many third parties claim and are regarded as having developed valid technologies and have a history of such claims (10+ years in some instances), but without a working prototype directly observed by independent parties as operational, and validated first-hand using the

prototype already supported by independent parties as operational, and validated first hand using the appropriate scientific equipment to confirm such claims, any supposed evidence and related claims should not be considered valid. This is certainly a catch 22 for those who are lacking necessary funding to develop next generation technologies. Fortunately, this is not an issue for Potomac Energy Projects, LLC, as the project has been independently funded and developed.

V. Stability / Reliability

The device is solid state (no moving parts), completely stable/reliable (and scalable) as long as liquid nitrogen is available. The device requires an environment cool enough to operate the superconductor component that exhibits the Cooper pair breaking effect and channels magnetic flux through different paths at variable high frequencies between the superconductive and nonsuperconductive states. Once the liquid nitrogen completely converts to a gas, the device stops operating (above Tc), with no adverse risk to the device or to personnel.

VI. Implementation

Immediate, once results from initial prototype testing and evaluation are available.

VII. Safety/Danger to Persons

None, unless you plan on dumping liquid nitrogen all over your body...it's great for burning off warts though. One would have to seal oneself in a room, dump the entire container of liquid nitrogen in this enclosed space, wait until you pass out, THEN one could die of asphyxiation...needless to say, controls are easily implemented to ensure that this gene pool cleansing does not occur. Air is 78% nitrogen, so no worries with respect to personnel safety. In a car accident for example, liquid nitrogen would actually help arrest any fires, rather than have combustible fossil fuel liquids pouring all over the highway and igniting, and/or sulphuric acid from the car battery exploding in your face.

VIII. Politics of science

We are not concerned about the politics, as an empowered populous will choose to embrace that which will allow the existence of mankind to continue. Current mainstream politics has already embraced 'the hydrogen economy' and fusion reactors as the next generation technologies to lift us out of our predicament; although, those technology fully implemented will not save our civilization, as a substantial amount of fossil fuels are required to implement hydrogen-based and fusion technologies...too little, too late. We need technologies that are immediately scalable AND available for full-scale production; otherwise, it's time to start brushing up on our survival skills. Every aspect of our modern civilization is dependent on fossil fuels, and we are for all practical purposes out of time.

IX. Open-Source conducive

The device could be used in conjunction with any device that requires electricity to operate.

X. Stage of Device Development

X. Stage of Device Development

The initial prototype is complete except for the YBCO (or any Type II superconductor exhibiting Cooper pair breaking) coated tubes. Once that last step (which has been holding up production for months due to the pulsed laser deposition unit requirement) is complete, it's open season on full scale R&D and production. We are not operating alone, as independent third parties have already taken an active interest in this technology (e.g., anyone with a working PLD unit can join the club). Had a fully operational PLD unit been available months ago, we would already be working on next generation prototypes for full-scale production. Third parties have already expressed an interest in developing next generation prototypes, so we are certainly not dependent on additional funding or other support to complete our research efforts.

In the News [edit]

- Google News > "Potomac Energy Project"

- **Potomac Energy Project Releases Patent Application** - Company wishes to spur development of the concept whereby the natural elasticity of the atomic level restorative force is harnessed for abundant, non-polluting, inexhaustible energy. (*PESN*; June 18, 2006)
- Direct Energy Conversion - Inventor Eddie Sines describes concept of creating a "flux gate" whereby Energy is extracted by means of magnet flux. (*ZPEnergy*; June 14, 2005) [Article author identity established Feb. 22 by email from Eddie Sines.]

Related Projects [edit]

- NONE

Contact [edit]

Eddie Sines, Inventor and President
Potomac Energy Projects, LLC
email: edsines{at}aol.com

NEC Specialist [edit]

- Richard P. George

- Richard P. George

See also

[edit]

- Directory:Solid State Generators
- Directory:Electromagnetic

- Other Directory listings • Latest • A-I • J-R • S-Z • Tree • News
- PESWiki home page

Categories: Top 100 | Zero Point Energy | Liquid Nitrogen | Solid State

"When you're one step ahead of the crowd you're a genius. When you're two steps ahead, you're a crackpot."
-- Rabbi Shlomo Riskin (Feb. 1998)

EE 6211 NON-CONVENTIONAL ENERGY SOURCES &APPLICATIONS

Objective- Understanding potential-scope - theory and applications of non conventional energy sources

L-T-P 3-0-0
Credits- 3

MODULE I (10 hours)

Introduction to energy conversion ,principle of renewable energy systems-technical and social implications.
Solar energy . overview of solar energy conversion methods . Solar radiation components-collector-measurements-estimation
Solar water heating-Calculation-Types-analysis-economics-Applications
Solar thermal power generation

MODULE II (10 hours)

MODULE II **(10 hours)**

Direct energy conversion (DEC)- DEC devices -Photo voltaic system-Solar cells- Cell efficiency- Limitations-PV modules-Battery back up-System design-Lighting and water pumping applications.

MODULE III **(9 hours)**

Wind energy .characteristics-power extraction- types of wind machines .dynamics matching- performance of wind generators .wind mills .applicatons- economics of wind power

MODULE IV **(10 hours)**

Biofuels- classification-biomass conversion process-applications; .ocean thermal energy conversion systems; Tidal and wave power-applications; Fuel cells .types- losses in fuel cell .applications; MHD generators- application of MHD generation-micro and mini hydel power

References

1. J.N.Twidell & A.D.Weir-*Renewable Energy Sources*, University press,Cambridge
2. Sukhatme, S.P., *Solar Energy -Principles of Thermal Collection and Storage*, Tata McGraw-Hill ,New Delhi
3. Kreith, F., and Kreider, J.F., *Principles of Solar Engineering*, Mc-Graw-Hill Book Co.
4. S.L.Soo ,*Direct Energy Conversion* , Prentice Hall Publication
5. James Larminie , Andrew Dicks , *Fuel Cell Systems*, John Weily & Sons Ltd
6. J.F.Manwell, J.G.McGowan, A.L.Rogers , *Wind Energy Explained* John Weily & Sons Ltd
7. E.J. Womack , *MHD power generation engineering aspects* , Chapman and Hall Publication.
8. G.D. Rai, *Non Conventional energy Sources*, Khanna Publications ,New Delhi

THE PEAK: SIMON FRASER UNIVERSITY'S INDEPENDENT STUDENT NEWSPAPER SINCE 1965. ON-LINE SINCE 1994.

Features - issue 12, volume 120 — July 18, 2005 — considering the empirical considerations since 1965.

2020 Vision - Next generation batteries

Dr. Future (a.k.a. Dr. Paul Tinari), Instructor of future studies at SFU

In the near future, millions of low-powered radio frequency devices

Issue 12 Contents
Current Issue
About
Contact
Masthead

in the near future, millions of low-powered radio frequency devices will be scattered throughout our environment, serving a variety of critical roles. However, the short and unpredictable life spans of existing chemical **batteries** means that new power supply solutions are needed.

The **Direct Energy Conversion** (**DEC**) cell is a beta-voltaics-based "nuclear" battery that can run for over a decade on the electrons generated by the natural decay of the radioactive isotope tritium. Because tritium's half-life is 12.3 years, the **DEC** cell could provide a decade's worth of power for many applications.

Beta-voltaic devices use radioisotopes that emit relatively harmless beta particles, rather than more dangerous gamma photons. A commercial version of the **DEC** cell will likely not be able to power a cell phone, but it would be more than sufficient for a sensor or pacemaker. Now, many implant patients continue to outlive their **batteries** and require costly and risky replacement surgery. The next step will be to adapt the technology for use in very tiny **batteries** that could power Micro-Electro-Mechanical Systems (MEMS) devices, such as those used in optical switches or the free-floating "smart dust" sensors being developed by the military.

You can listen to Dr. Tinari on Future Talk, every Monday at: 4:00 p.m. on CJSF Radio, 90.1 FM.

Archives
Search
Links

ADVERTISING
Classifieds
Advertising
Ratecards

http://64.233.169.104/search?q=cache:HTu1xYQE_HwJ:www.core77.com/blog/technology/buttonbatteries_and_decs_719.asp+%22dec%22+batteries+%22direct+energy+conversion+%22+betabatt&hl=en&ct=clnk&cd=41&gl=us
04/30/2008 10:05:33 AM

INDUSTRIAL DESIGN SUPERSITE

VISIT OUR NETWORK : DESIGN JOBS FIRM LISTINGS

Core77 Design Blog

NAVIGATION

- Home
- blog
- articles
- studio bullitts
- photo galleries
- podcasts
- calendar
- books + links
- design schools
- discussions

RSS Feeds:
Our Blog
Studio Bullitts

CURRENT :

Button-Batteries and DECs

Posted by: csven on Friday, June 17 2005

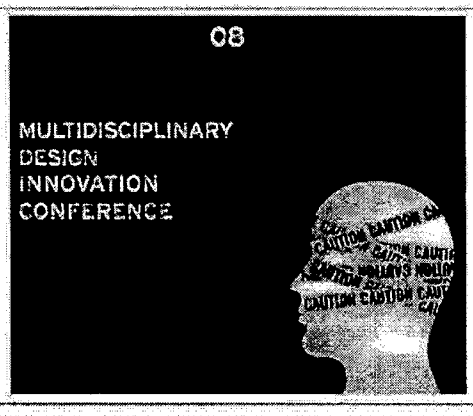
Via Treehugger comes news of a watch-battery sized propane fuel cell. Pretty sweet. And over on the MIT Technology Review site is a couple pages worth of discussion about Atomic **Batteries**. To be honest, I didn't get past the first couple paragraphs but the following bit will have me heading back for a complete read later:

> It's called the **Direct Energy Conversion (DEC)** Cell, a betavoltaics-based "nuclear" battery that can run for over a decade on the electrons generated by the natural decay of the radioactive isotope tritium.

Finally a way to power my cyborg implants and give me the natural look of

MORE :

radioactive decay I associate with being a Borg drone (/jk).



Comment on this post

Name:
Email:
URL:
Comment:

PREVIEW POST

From: [illegible] (greendiode[illegible])
Subject: [illegible] interesting 80 deg Type 2 (BCS) superconductors

Devices

Maybe [illegible] the [illegible] are working on broadband optical [illegible] [illegible] energy harvesting.

http://www.darpa.mil/dso/trans/energy/[illegible].html

To overcome the inherent efficiency limitations of a traditional photovoltaic conversion process (solar energy to DC power), [illegible] is developing a novel, direct energy conversion device (DCD). The DCD efficiently absorbs free space electromagnetic radiation (EM) using a broadband, 2-D grid antenna array that couples to essentially any polarized wave form (e.g., elliptically polarized solar radiation).

Coupled energy is then concentrated to the feedpoints of a diode (operating as either a classical or quantum diode depending on the frequency range of interest) and is rectified to generate DC power. Whether at 10 GHz (e.g., X-band communications) or at 1000 THz (blue end of the visible to ultraviolet), the anticipated high conversion efficiency (incident energy to DC power) is frequency-independent, although the size of the array will scale with frequency. To date, we have demonstrated: Greater than 60% efficient energy coupling and RF-to-DC conversion using the grid array (efficiency at 10 GHz limited only by diodes). First ever demonstration of zero-bias, room temperature optical rectification at 60 THz (5 microns) using planar, high frequency MIM diodes. Successful development of an efficient DCD would create new opportunities in energy harvesting as well as spin-off opportunities in detection and imaging from low frequency (10 GHz) to high frequency (1000 THz).

See also for more about the physics: http://www.darpa.mil/dso/trans/energy/briefings/11th.pdf

Look also in google for more if you like. These devices if fully developed could replace photovoltaic technology by reaching efficiencies higher than 90%. All based on this nanotechnologically engineered rectennas. Imagine electric propulsion crafts having such a multifunctional nanotech skin. And God knows what else could be done with similar nanotech smart skins one day.

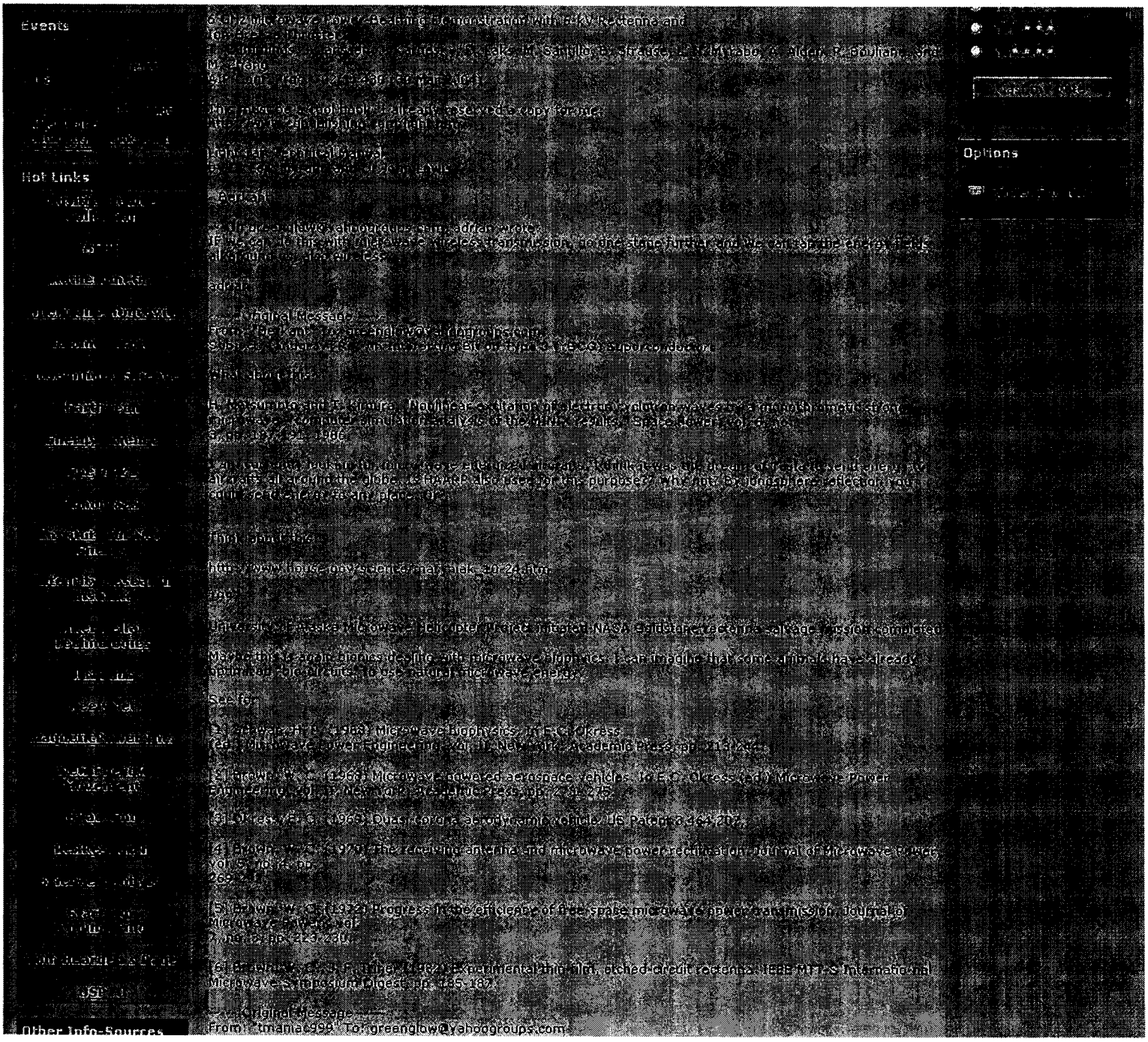
Today, microwave rectenna arrays can already generate high voltage outputs up to 6kV as far as I know. Maybe much more is possible. See the work of Prof. Myrabo on ion-breeze thrusters. This is the low speed take-off propulsion mode for the microwave beam powered hypersonic lightcrafts.

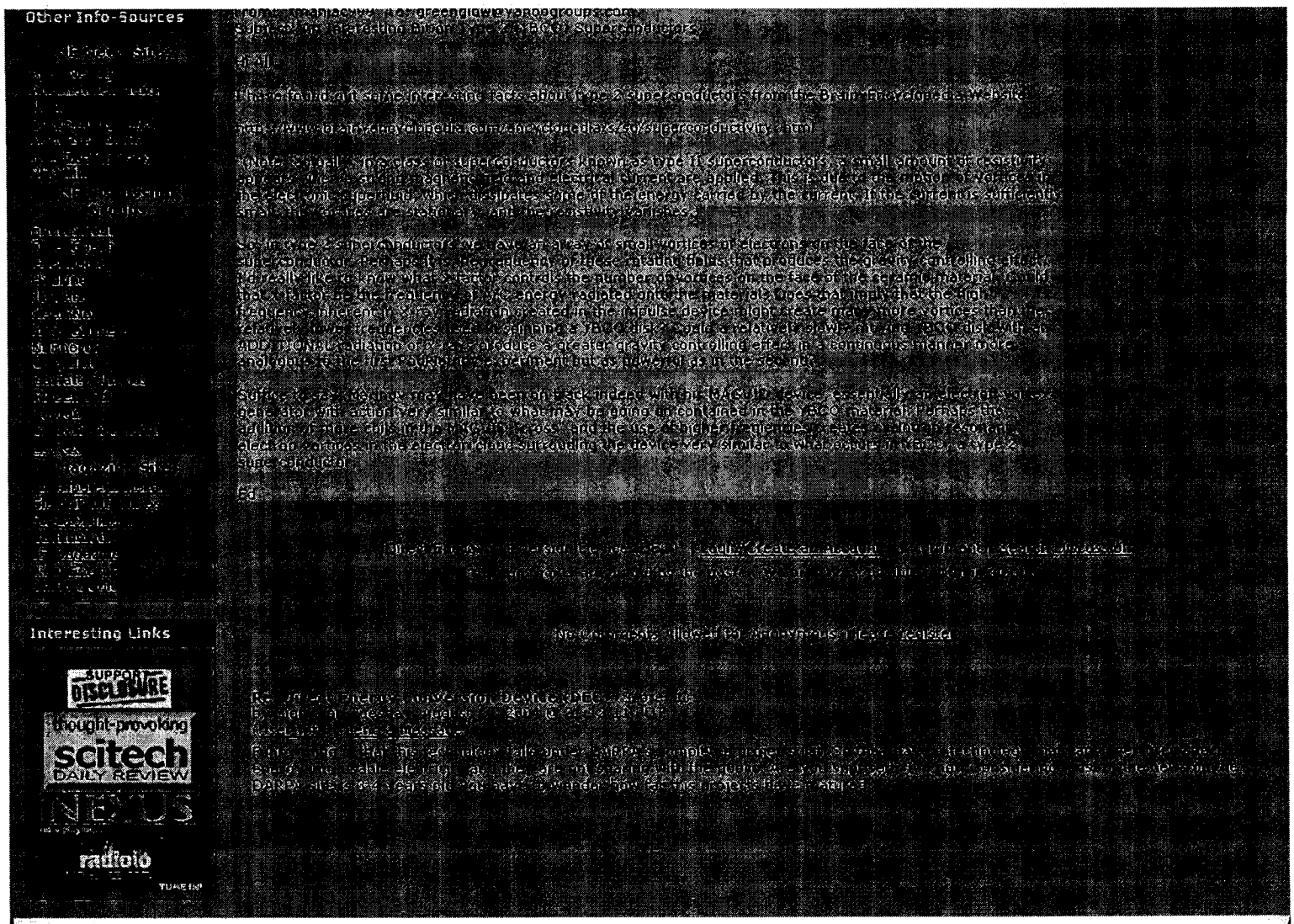
http://www.rpi.edu/dept/mane/deptweb/faculty/member/myrabo.html

Among other promising engine concepts (i.e., compatible with beamed electromagnetic power), he has investigated pulsed detonation engines, magnetohydrodynamic slipstream accelerators, directed-energy airspikes (DEAS), various rocket-based combined-cycles, rotary pulsejets, scramjets, and a unique airbreathing "Ion-Breeze" thruster.

Today, everybody is talking about lifters and how to build self-sustaining one when other are already talking about applications using advanced rectenna technology.

http://authors.aip.org/M._Zhang.html


Events
Hot Links
Options
Other Info-Sources



http://64.233.169.104/search?q=cache:H67K-P_5PgcJ:www.advancedinformation.net/buzz.php+%22dec%22+batteries+%22direct+energy+conversion+%22+-betabatt&hl=en&ct=clnk&cd=78&gl=us 04/30/2008 10:09:32 AM

Clickatell saves customers up to 20%

Added by AIN News. October 04, 2005

Clickatell saves customers up to 20%

SMS Text messages continues to grow in the business market as well as a handy way for friends and family to keep in touch.

Clickatell was one of the first companies to make a business out of offering worldwide SMS text messaging as a business tool.

Clickatell offers cheaper SMS texting worldwide and an easy to use service that is just as simple as sending a email. As staff and workstations are continuing to become more mobile, SMS texts are a great way to communicate.

www.webitpr reports on SMS text growth in the future;

> SMS volumes around the world are poised to reach 1,000 billion in 2005, and a massive 2.38 trillion in 2010, according to Portio Research's latest report, "Mobile messaging futures, 2005 – 2010". Indeed, the research house said that 761 billion SMS were sent in 2004 – that's over 100 messages for every man, woman and child on the planet.

Category(s): SMS News
Permanent Link to Clickatell saves customers up to 20%

M2M: When machines talk back, it's a good thing

Added by AIN News. September 19, 2005

M2M: When machines talk back, it's a good thing

M2M will change the world more than most people realise. The key reason for this is that so many different industries will experience efficiency gains from M2M. A recent article on manufacturing.net looks at M2M development and which sectors will be effected the most over the next 5 years.

> Machine-to-machine (M2M) communications, interconnecting physical assets with each other and with people, is predicted to exceed $250 billion by 2010, according to Harbor Research estimates cited at the recent "M2M In Action: Strategy Summit & Networking Event" in Chicago. (No current M2M market value was provided.) Whatever the number, the enormity seems understandable, since M2M seems to incorporate residential, commercial, personal device communications, as well as multiple industrial categories, including industrial networks, wireless communications, data acquisition, monitoring, human-machine interfaces, and the related hardware, software, and services, across all industries.

Category(s): M2M
Permanent Link to M2M: When machines talk back, it's a good thing

Mobile Power Generation

Added by AIN News. September 13, 2005

True power hikers create electricity while on the trail

Electricity on the go!
The latest product to come out of the USA is a backpack that creates its on power.

If is not a lot, but sufficient to run and mp3 player, GPS, Cell phone or night vision goggles.

The chron.com said on how the backpack works;

> The up-and-down motion caused by walking powers a small generator, producing electricity that can be used directly or stored in a capacitor or battery.

Category(s): Related Products & Companies
Permanent Link to Mobile Power Generation

Big-Brother device keeps drinkers off the streets

Added by AIN News. July 24, 2005

Big-Brother device keeps drinkers off the streets

Remote monitoring is becoming very popular. AIN has assisted in cases where remote monitoring of water ways have saved time for technicians traveling to check them.

But this is something new, remote monitoring people for drinking to save lives. Drink drive offenders are now being remotely monitored to make sure it doesn't happen again.

indystar.com reviews the device that is being trailed in the USA

> The device is called SCRAM, which stands for secure, continuous, remote alcohol-monitoring device. It includes two plastic boxes strapped to an offender's ankle. One box sniffs out any alcohol by sucking up sweat. The other has a computer that sends the information to a modem linked to the offender's phone, which sends a message to probation officials by the Internet

Category(s): Related Products & Companies
Permanent Link to Big-Brother device keeps drinkers off the streets

Colesmyer printer health monitored inside the matrix

Added by AIN News, July 21, 2005

Colesmyer printer health monitored inside the matrix

Coles Myer have jumped on the M2M train and

> allowed 300 of its printers to be analysed from one central PC to make sure each individual one has sufficient paper and the correct configuration

according to an article in idm.com. The system can record the ribbon life and paper levels of each printer and send email and SMS alerts to the key staff when things need to be topped up or fixed.

Category(s): M2M
Permanent Link to Colesmyer printer health monitored inside the matrix

SMS Crazy

Added by AIN News, July 20, 2005

SMS man: He has sent 9.25 lakh messages

An man in India is trying to make the Guiness Book of World Record for the largest number of SMS messages sent in a day.

Expressindia said that the man has been

> Using his Rs 99 unlimited SMS pack, he has been sending 18,000 messages per day, with an average of 1,000 messages per hour. Deepak, who owns the 6600 Nokia mobile, sends all the 1,000 messages at one go. It takes three seconds for each message to be dispatched.

Some people must have too much time on their hands!

Category(s): SMS News
Permanent Link to SMS Crazy

Mobiles to track your kids

Added by AIN News, July 19, 2005

Mobiles to track your kids

Mobiles to track your kids

In a news item earlier this year we have profiled hte new tracking system through the use of cell phones and gprs.

With this technology parents can now keep and eye on the whereabouts of their children.

thesun.co.uk covers the release of the product.

> The KidsOK system, backed by a leading children's charity, tracks the whereabouts of youngsters' handsets to within 500 metres.
>
> Parents who register for the scheme simply text a five digit number to receive a full description and map of the location on their phone.

Category(s): Related Products & Companies
Permanent Link to Mobiles to track your kids

Police Warn Public Of SMS Scam

Added by AIN News. June 30, 2005

Police Warn Public On Two Scams

Police are warning public in Brunei of an SMS scams. Like the email scams of the last 5 years, this tries to trick people into thinking they have won a lot of money.

> The police have also received information from the public regarding a scam that is being sent through the Short Messaging Service (SMS) from the Philippines.
>
> These SMSs feature messages regarding D'PHIL CHARITY, SWEEPSTAKES and many more informing recipients that they have won a lottery draw involving a large sum of money.
>
> These fake SMSs also inform recipients that they must send B$1,000 as an advance payment to process the 'money' they have won.

Click on the link above to read more.

Category(s): SMS News
Permanent Link to Police Warn Public Of SMS Scam

Your SMS can light up city roads

Added by AIN News. June 28, 2005

Your SMS can light up city roads

Who would of thought getting street lights repaired could soon be right at your finger tips. SMS the ID code of the light to have it repaired.

Expressindia.com looked into the idea to help improve the current service.

> In the proposal that is awaiting approval, the traffic police have recommended a system whereby a unique ID will be painted boldly on each pole.
>
> The complaints can be sent through SMS citing the ID number to a server that will compile the data with the help of a special software. The complaint number will be sent back automatically to the cellphone of the complainant.

It will be interesting to see if this takes off and people buy into this system. The set up of the ID tag for each post could a costly exercise.

Category(s): SMS News
Permanent Link to Your SMS can light up city roads

Clocking in and out, while out of the office.

Added by AIN News. June 26, 2005

Time management made easy

New Zealand based company ECONZ Wireless have made time management easy for people on the go.

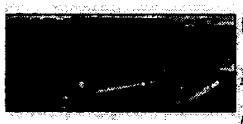
Logging in or out, and when breaks are had is easily monitored by recording this info in cell phones.

Cell phones then connect to the internet to record this time for office staff at near real time.

> The company behind Timecard, New Zealand-based ECONZ Wireless, says its target market is small companies whose repairmen, consultants, sales staff or other in-the-field employees would like to track their billable hours without resorting to excessive paperwork.

This is a good product for a company on the move to look into. Benefit to the boss, track staff and increase efficiency. Benefit to the workers, less paper work!

Category(s): Related Products & Companies
Permanent Link to Clocking in and out, while out of the office.



ECAN Water Data Collection Forum

Added by AIN News. June 23, 2005

AIN ECAN Forum presentation notes

Phase 2 of the ECAN Water Monitoring Trial was a discussion forum on the trials. Over sixty people attended the day from many organisations including district/regional councils, irrigation companies (MICO, Rainers etc), consultants (IRRICON, URS etc), interested groups (Federated Farmers, DEXCEL, MFE etc), and sections within Environment Canterbury. We gave a 30 minute presentation to the group on datalogging and data collection. The notes from this presentation is now available to be viewed online. Click on the link above to take a look.

Category(s): New at AIN
Permanent Link to ECAN Water Data Collection Forum

Business SMS Booming

Added by AIN News. June 22, 2005

UK business text growth ahead of consumer growth for the first time

SMS is establishing itself as a permanent fixture in business communications around the world. Texting is now not something just friends and family do to keep in touch.

According to Mike Grenville for 160characters.org, O2 Business Trending Index finds that,

> Business SMS however looks set to show more consistent and steady growth as more and more employees across the UK adopt SMS as a viable communication option.
>
> In 2000, the Mobile Data Association found that 19 million messages were sent daily. In February 2005, that figure had reached an average of 75 million a day, a massive increase that can be attributed in part to increasing take up of SMS for business purposes.

Category(s): SMS News
Permanent Link to Business SMS Booming

Fingerprint reading at forefront of security

Added by AIN News. June 21, 2005

Fingerprint reading at forefront of security

Data collection is taking place everywhere. Now what is more important than collecting data itself, is what we do with that data. That includes keeping this data secure. Passwords can be stolen or guessed and locks can be picked. Data in the wrong hands is dangerous for businesses and individuals.

Markets are now looking to biometric solutions to help protect this data. Finger print readers and eye scanners are now being introduced on PCs, doors and even being developed for cell phones.

nzherald.co.nz article said:

> Some notebooks already have built-in fingerprint readers, so only the authorised user can access the data. Other computer users can take advantage of relatively inexpensive fingerprint readers which can be plugged into a USB port.
>
> Security vendors are scrambling to create biometric pads for mobile phones, which can be packed with sensitive data.

Category(s): Related Products & Companies
Permanent Link to Fingerprint reading at forefront of security

The Battery That Truly Keeps on Going and Going and Going!

Added by AIN News. June 20, 2005

The Battery That Truly Keeps on Going

The Battery That Truly Keeps on Going

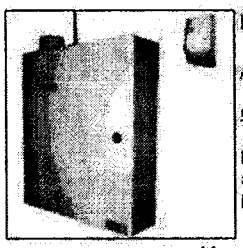
Watch out Eveready, the battery that keeps on going for longer may be just round the corner.

A recent article on csemay.com fills us in on where the battery market may be heading. The breakthrough in long life batteries is discussed in this article, part of which can be seen below.

> A direct energy conversion (DEC) cell—also called a betavoltaics-based "nuclear" battery—is not only microscopic in size, but also could run for more than a decade on the electrons generated by the natural decay of the radioactive isotope tritium. Such devices convert low levels of radiation into electricity and can have useful lives spanning several decades.

Just think of the benefits of a battery that can last for the lifetime of a device. For M2M applications this could be very useful. Remote location systems would benefit greatly from a battery of this type. This could remove the need to have solar power generation or onsite visits to charge batteries on a regular basis.

Category(s): Related Products & Companies
Permanent Link to The Battery That Truly Keeps on Going and Going and Going!



Remote cell phone control offered to security sector.

Added by AIN News. June 16, 2005

eCos finds a home in home security

Linuxdevices.com displayed the eCos Home Securer on its website as a feature article recently. Linux Devices identifies key features of the Home Securer that include the ability to:

> report status, send logged data, and be configured remotely via SMS messages, data connection (the GSM can be used in modem mode), or GPRS. It features caller-ID for voice calls and can respond to requests sent within SMS messages....
>
> Additionally, the device's built-in software includes support for analog and digital I/O interfaces, threshold settings, timers, and functional operators (IF, THEN, ELSE, and WHILE). The analog and digital ports can be used for security, environmental, lighting, moisture, and other sensor and control interfacing purposes.

Advanced Information Networks SecureSite is a package that offers similar features to that of the Home Securer. SecureSite is built into an enclosure and offers intruder notification to cell phone, remote control via cell phone and input sensor monitoring and logging. As the package is built round AIN's XE8000 SMS Controller, control of additional outputs such as door locks would also be possible.

Category(s): Related Products & Companies
Permanent Link to Remote cell phone control offered to security sector.

http://www.google.com/search?q=%22dec%22++batteries+%22direct+energy+conversion+%22+-betabatt&hl=en&lr=&as_qdr=all&start=0&sa=N 04/30/2008 10:16:13 AM

Web Images Maps News Shopping Gmail more ▾ Sign in

Google "dec" batteries "direct energy conversion " -betabatt Search Advanced Search Preferences

Web Results 1 - 10 of about 1,690 for "dec" batteries "direct energy conversion " -betabatt. (0.12 seconds)

Energy Citations Database (ECD) - - Document #5303775
Title: **Direct energy conversion** - literature abstracts. Publication Date: 1962 **Dec** 01. OSTI Identifier: OSTI ID: 5303775. Report Number(s): N-63-11677; ...
www.osti.gov/energycitations/product.biblio.jsp?osti_id=5303775 - 10k -
Cached - Similar pages

Energy Citations Database (ECD) - - Document #7290674
Subject: 300000 -- **Direct Energy Conversion**; 250900 -- Energy Storage-- **Batteries**; 300100 -- **Direct Energy Conversion**-- MHD Generators; 300300 ...
www.osti.gov/energycitations/product.biblio.jsp?osti_id=7290674 - 10k -
Cached - Similar pages
More results from www.osti.gov »

Direct Energy Conversion
Educator/Reseller Bulk CD-ROM Sales, **DIRECT ENERGY CONVERSION**-A HUGE Collection ... New Class Of 5V Cathode Materials For Li **Batteries**. I. Electrochemical, ...
www.oldlitho.com/bulk/bdirenercon.htm - 43k - Cached - Similar pages

DIRECT ENERGY CONVERSION LITERATURE ABSTRACTS.
Title: **DIRECT ENERGY CONVERSION** LITERATURE ABSTRACTS. Corporate Author: NAVAL RESEARCH LAB WASHINGTON D C. Report Date: **DEC** 1963 ...
stinet.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=AD0430693 - 3k -
Cached - Similar pages

Energy and Power Production: Non-electrical Energy Conversion ...
Direct Energy Conversion Literature Abstracts, **DEC** 63 ... Thermal energy conversion; Fuel cell **batteries**; The future of fuel cells; Secondary **batteries**; ...
www.stormingmedia.us/cat/sub/subcat165-28.html - 80k - Cached - Similar pages

Liquid/Solid Phase Diagrams of Binary Carbonates for Lithium ...
Direct energy conversion and storage. Electrochemical conversion and storage: ... mixtures containing **DEC** are still frequently used in the lithium **battery** ...

containing **DEC** are still frequently used in the lithium **battery** ...
link.aip.org/link/?JES/148/A299/1 - Similar pages

Nuclear **Batteries** for Wireless Sensors | Columns | Automation World
Present-day commercial products rely on chemical **batteries**. ... Nuclear **direct energy conversion (DEC)** devices sound frightening, but in fact, ...
www.automationworld.com/view-2047 - 34k - Cached - Similar pages

[PDF] INVESTIGATION INTO **DIRECT ENERGY CONVERSION** WITH MEDIUM ENERGY ...
File Format: PDF/Adobe Acrobat - View as HTML
Direct energy conversion (DEC), also referred to as direct collection, is the ..... The target bias cup was negatively biased by a **battery** from 0 to 350 V, ...
https:/.../1533/etd-tamu-2004C-NUEN-Guild-B.pdf;jsessionid=1DD2B774A72EFA06EE70B34C4E498A01?sequence=1 - Similar pages

USIFF Online Auctions **DIRECT ENERGY CONVERSION**
Direct Energy Conversion technologies are potentially the most efficient form of .... 55p, Research And Development Of a Phosphoric Acid Fuel Cell/**Battery** ...
www.usiff.com/auction_item.php?itemnum=111172 - 65k - Cached - Similar pages

Subject Index - Energy Conversion, IEEE Transactions on
Direct energy conversion; cf. Magnetohydrodynamic converters ..... Ma Weiming, + , T-EC **Dec** 00 458-463. Rectifying circuits; cf. **Battery** chargers ...
ieeexplore.ieee.org/iel5/60/19493/00900515.pdf?arnumber=900515 - Similar pages

Goooooooooogle ▶
1 2 3 4 5 6 7 8 9 10 **Next**

http://www.google.com/search?q=%22dec%22++batteries+%22direct+energy+conversion+%22+-betabatt&hl=en&lr=&as_qdr=all&start=30&sa=N 04/30/2008 10:16:38 AM

Web Images Maps News Shopping Gmail more ▾ Sign in

Google "dec" batteries "direct energy conversion " -betabatt Search Advanced Search Preferences

Web Results 31 - 40 of about 1,690 for "dec" batteries "direct energy conversion" -betabatt. (0.11 seconds)

Amazon.com: conversion energy principle
Principles of Energy Conversion by Archie W. Culp (Hardcover - **Dec** 1979) ... Handbook of **Batteries** by David Linden and Thomas B. Reddy (Kindle Edition - Aug ...
www.amazon.com/s?ie=UTF8&keywords=conversion%20energy%20principle&index=blended&page=1 - 141k - Cached - Similar pages

[RwC)2]
ricula by introducing courses in **direct energy conversion** (**DEC**) at ... **Batteries**. Annual Power Sources. Conference. Manuscript. received ...
ieeexplore.ieee.org/iel5/13/4320384/04320396.pdf?arnumber=4320396 - Similar pages

[PDF] 1 Mesoscale Power Generation by a Catalytic Combustor using ...
File Format: PDF/Adobe Acrobat - View as HTML
the best (e.g. Lithium ion) **batteries** available on the market today. .... **direct energy conversion** modules. The mechanism of electrospray atomization, ...
www.eng.yale.edu/gomez-lab/research/pdf/meso.pdf - Similar pages

A brief history of thermophotovoltaic development
Aigrain proposed this **direct energy conversion** concept during a series of lectures on a number .... Int. Electron Devices Meeting (Washington DC 8-10 **Dec**. ...
www.iop.org/EJ/article/0268-1242/18/5/301/s30601.html - Similar pages

Toyota, Electric Vehicles, Hybrids, & Chevron - Page 2 - Club ...
What is the fully amortized cost of the **batteries** - cradle to grave - compared to **direct energy conversion** at 37% to 52% (gasoline and diesel efficiencies)? ...
www.clublexus.com/forums/showthread.php?p=3483965 - 82k - Cached - Similar pages

Thin-film **battery** devices and apparatus for making the same - US ...
Thus, the present invention provides a method for integrating solid-state lithium **batteries** with **direct energy conversion** materials on a flexible fabric. ...
www.patentstorm.us/patents/7157187-description.html - 237k - Cached - Similar pages

Ocean wave energy conversion system - Patent # 5136173 - PatentGenius
Fisher, RB and Peters, DG, Quantitative Chemical Analysis, **Dec**. ..... for storage in **batteries** for later use, for water desalinization through hydrolysis, ...
www.patentgenius.com/patent/5136173.html - 54k - Cached - Similar pages

Energy and Power Production: Non-electrical Energy Conversion ...
SELECTED TOPICS IN ELECTROFLUID DYNAMIC ENERGY CONVERSION,, **DEC** 1968 .... Topics included are: Fuel cell control systems; Fuel cell **battery** hybrid systems; ...
www.stormingmedia.us/cat/sub/subcat165-25.html - 92k - Cached - Similar pages

EnergyStorm - Proceedings of the thirty-second intersociety energy ...
Energy Storage, Conversion And Utilization · **Direct Energy Conversion** ... Publication Date: 31 **Dec** 1997. Report numbers: CONF-970701-- ...
www.energystorm.us/Proceedings_Of_The_Thirty_Second_Intersociety_Energy_Conversion_Engineering_Conference... - 14k - Cached - Similar pages

[PDF] Parametric Study of Beta-Endpoint Energy in Direct Energy Converters
File Format: PDF/Adobe Acrobat - View as HTML
The design concept of a nuclear **battery** involving **direct energy conversion** would consist of alternating layers of a direct energy converter (**DEC**), ...
www.arl.army.mil/arlreports/2007/ARL-TR-4034.pdf - Similar pages

◀ Goooooooooooogle ▶
Previous 1 2 3 4 5 6 7 8 9 10 11 12 13 **Next**

"dec" batteries "direct energy conversion " -betabatt Search

Search within results | Language Tools | Search Tips | Try Google Experimental

To:	BetaBatt, Inc. (**ray.ferrera@arlaw.com**)
Subject:	TRADEMARK APPLICATION NO. 77036122 - DEC - B31175US
Sent:	4/30/2008 11:45:30 AM
Sent As:	ECOM110@USPTO.GOV
Attachments:	

IMPORTANT NOTICE
USPTO OFFICE ACTION HAS ISSUED ON 4/30/2008 FOR APPLICATION SERIAL NO. 77036122

Please follow the instructions below to continue the prosecution of your application:

VIEW OFFICE ACTION: Click on this link **http://tmportal.uspto.gov/external/portal/tow?DDA=Y&serial_number=77036122&doc_type=REC&mail_date=20080430** (or copy and paste this URL into the address field of your browser), or visit **http://tmportal.uspto.gov/external/portal/tow** and enter the application serial number to **access** the Office action.

PLEASE NOTE: The Office action may not be immediately available but will be viewable within 24 hours of this notification.

RESPONSE MAY BE REQUIRED: You should carefully review the Office action to determine (1) if a response is required; (2) how to respond; and (3) the applicable **response time period**. Your response deadline will be calculated from **4/30/2008**.

Do NOT hit "Reply" to this e-mail notification, or otherwise attempt to e-mail your response, as the USPTO does NOT accept e-mailed responses. Instead, the USPTO recommends that you respond online using the Trademark Electronic Application System response form at http://www.uspto.gov/teas/eTEASpageD.htm.

HELP: For *technical* assistance in accessing the Office action, please e-mail **TDR@uspto.gov**. Please contact the assigned examining attorney with questions about the Office action.

WARNING

1. The USPTO will NOT send a separate e-mail with the Office action attached.

2. Failure to file any required response by the applicable deadline will result in the ABANDONMENT of your application.